pr.667BDR Kalmar - DELTA-III

DATA FOR 2024 (standard update)
pr.667BDR "Kalmar" - DELTA-III

K-424	K-487	K-223
K-441	K-44	K-180
K-449	K-496	K-433
K-455	K-506	K-129
K-490	K-211	

★★★

Nuclear-powered ballistic missile submarine (SSBN). The SSBN project was developed by the Rubin Central Design Bureau for Marine Engineering (Leningrad) based on the prp.667BD SSBN, chief designer - S.N. Kovalev . Work on the project of the D-9R sea-based intercontinental ballistic missile system with multiple warheads and the prp.667BDR SSBN carrier was initiated by the USSR Navy Command in January 1973.

The construction of the series of boats was carried out in Severodvinsk at PO Sevmash. The lead boat K-424 (plant no. 355) was laid down on January 30, 1974, launched on February 11, 1976 and accepted by the Fleet on December 30, 1976.



SSBN K-496 "Borisoglebsk" project 667BDR (1990-2000s)

Author: DIMMI Created: 22.03.2016 21:01:08 Comments: 7 READ THE FULL ARTICLE

pr.885 Ash - YASEN / GRANAY / GRANEY

DATA FOR 2024 (standard update)
pr.885 / pr.08850 "Ash" - YASEN / GRANAY / GRANEY
K-560 "Severodvinsk"
pr.885M / pr.08851 "Ash-M" - YASEN-II
K-561 "Kazan"
K-573 "Novosibirsk"
K-571 "Krasnoyarsk"
K-562 "Arkhangelsk"
"Perm"
"Ulyanovsk"
"Voronezh"
"Vladivostok"
★★★★

Multipurpose nuclear-powered submarine with cruise missiles (SSGN). Developed at the Malakhit Scientific Research Institute of Nuclear Engineering, Chief Designer - V.N. Pyalov (1985-2016). R&D on the development of 4th generation SSNs began in 1977. Preliminary design of an attack submarine with classic torpedo-missile armament according to Project 885 began in 1980 along with the development of Project 957 SSNs. The new project (885) retained a certain continuity from the Project 971 SSNs in terms of noise reduction. In 1985, the construction of Project 885 boats was planned by the USSR Navy construction program for the next 10 years. It was planned to build a series of 30 SSNs. On October 30, 1986, contract No. 102/86-E/554-86 was signed between the USSR Ministry of Defense and SPMBM "Malakhit" for the implementation of experimental design work (EDW) "Project 885" (an additional agreement to the contract was signed on March 31, 2011). The technical design of the submarine was prepared in the late 1980s, but was later redesigned taking into account changes in the requirements of the Navy leadership and taking into account the start of testing the promising and unified anti-ship missile "Onyx" for different carriers (1987). In 1989, a decision was made to cease the development of specialized SSNs and modify Project 885 for the "Onyx" anti-ship missile and the "Granat" cruise missile with the installation of a vertical launcher on the submarine.

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PLA K-329 "Severodvinsk" project 885, probably 2014 (photo - Vorkunkov Maxim, http://www.sevmash.ru).

Author: DIMMI Created: 16.03.2010 02:31:49 Comments: 121 READ THE FULL ARTICLE

pr.955 Borey - BOREI / DOLGORUKIY

DATA FOR 2024 (standard update)
pr.955 "Borey" - BOREI / BOREY / DOLGORUKIY
K-535 "Yuri Dolgoruky"
K-550 "Alexander Nevsky"
K-551 "Vladimir Monomakh"
pr.955A "Borey-A" / pr.955U
K-549 "Prince Vladimir"
K-552 "Prince Oleg"
K-553 "Generalissimo Suvorov"
K-554 "Emperor Alexander III"
K-555 "Prince Pozharsky"
"Dmitry Donskoy"
"Prince Potemkin"

★★★★

Nuclear-powered ballistic missile submarine (SSBN). Research and development work on the development of a 4th generation SSBN with the D-11 missile system began in 1978. Development of Project 955 Borei-1 with the D-31 SLBM system and Project 935 Borei-2 with the D-35 SLBM system began at the Rubin Central Design Bureau of Marine Engineering under the leadership of General Designer S.N. Kovalev (since 1990 - under the leadership of Chief Designer V.N. Zdornov) in accordance with the Resolution of the USSR Council of Ministers in November 1985. The Chief Designer of the Borei project since March 2011 is Sergei Ottovich Sukhanov (source). It was planned to develop technical proposals for the SSBN and missile systems during 1985-1986. The technical proposals for the D-35 system were not implemented.

The development of the Project 955 SSBN with the D-19UTTH "Bark" missile system (12 SLBMs) instead of the D-31 system was started by the Resolution of the USSR Council of Ministers dated October 31, 1989 (*source - V.S. Zavyalov*). During the development of the project, it was planned to build a series of 14 SSBNs by 2000. In June 1995, by decree of the President of Russia B.N. Yeltsin, the redesign of Project 955 for the D-19UTTH "Bark" SLBM system of the Makeyev State Rocket Center was started. Although, according to some information, the technical design of the Project 955 SSBN with the "Bark" system was completed in the early 1990s (*source - Apalkov*).

The first submarine of Project 955 with the Bark missile system, K-535 Sankt-Peterburg, was added to the lists of Navy ships on 19.08.1995 and renamed Yuri Dolgoruky on 01.05.1996. The SSBN was ceremoniously laid down in workshop No. 55 of PO Sevmash (Severodvinsk) on 02.11.1996 with factory number 201. As a result of the delay in testing the Bark missile system, as well as in connection with difficulties with contractor deliveries of materials and equipment, the construction of the SSBN was suspended in mid-1997. It is believed that preparation of the groundwork for the first serial submarine of the project, factory No. 202 Alexander Nevsky, was also started in 1996 (source - *Apalkov*).

After the refusal to complete the Bark missile system, a decision was made to redesign the SSBN for a new missile system. Starting from September 1998 to mid-1999 (according to the 1998 plans), Project 955 was redesigned according to Project 09551 to use the hull stock of the Project 971 submarines and the new Bulava missile system. In the 1990s, the lead boat of Project 09551 was planned to be delivered to the fleet in 2001-2002.

In the summer of 2003, in workshop No. 55 of PO Sevmash, the unfinished hulls of the submarines were rearranged, which made room for the official laying of the first serial and the second SSBN of Project 955 Borey. The Navy leadership has announced plans to receive the first three boats of the project into the Fleet by 2010 (source).

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SSBN K-553 "Generalissimo Suvorov" project 955A "Borey-A" leaving Severodvinsk for its temporary basing site in the Northern Fleet, January 2023 (video frame from the Russian Ministry of Defense)

Author: DIMMI Created: 14.03.2010 05:45:43 Comments: 155 READ THE FULL ARTICLE

pr.636 - Improved KILO

DATA FOR 2024 (standard update)
Project 636 / Project 636M / Project 06361 - Improved KILO
Project 06363 - Improved KILO-II

Large diesel-electric submarine (type "B"). The submarine project was developed for delivery to China on the basis of project 877M - Improved KILO . The design was carried out by the Rubin Central Design Bureau, the chief designer of the project is Yu.N.Kormilitsyn, as of the end of 2013 (or earlier) - Igor Molchanov. Compared to the basic modifications of project 877 , the boats of project 636 are distinguished by the installation of a new generation of onboard equipment and the widespread use of sound-absorbing technologies. The lead boat of Project 636 - B-466 (the future "Yuan Zhend 66 Hao" of the Chinese Navy) was laid down at the Admiralty Shipyards under the factory number 01616 on June 16, 1996. The boat was launched on April 26, 1997 and delivered to the Navy on August 26, 1997. The transfer of the boat to the Chinese Navy took place on November 12, 1997. In those years, the production cycle of the boats of the project was just over a year. In the first half of the 2000s, the production cycle increased to 1.5-2 years and by the beginning of the 2010s it was already from 2,5 to 4 years.



Submarine pr.06363 B-261 "Novorossiysk" in the South Bay of Sevastopol, 10/06/2018 (https://t.me/kchf_ru)

Author: DIMMI Created: 24.02.2013 21:45:09 Comments: 18 READ THE FULL ARTICLE

pr.685 - MIKE

DATA FOR 2024 (in progress)
pr.685 "Plavnik" - MIKE
K-278 "Komsomolets"

Experimental nuclear submarine with great diving depth. The order for the design of a combat nuclear deep-sea submarine on the theme of the R&D project "Granit" was received by the Rubin Design Bureau (TsKB-18) in early 1966. In August 1966, the technical specifications for the design of the submarine were issued in order to study the conditions of its operation. It was supposed to use the experience of creating and operating a deep-sea submarine with a titanium hull to create a serial project of deep-sea submarines. Chief designer - N.A. Klimov (since 1977 Yu.K. Kormilitsyn). The technical project of the submarine was approved in 1974.

The submarine K-278 was included in the lists of ships of the Navy as a cruising submarine on 16.03.1976. The official keel laying of the submarine K-278 under the factory number 510 took place on 22.04.1978 in workshop #42 of the Sevmash Production Association (Severodvinsk), the person in charge of the submarine delivery was V.M. Chuvakin, the delivery mechanic was E.P. Leonov. The submarine was launched from the workshop on 30.05.1983. The submarine was launched on 03.06.1983. From July to August 1983, the submarine completed the mooring trials program. After sea trials, the submarine was accepted by the Navy on 28.12.1983. In October 1988, the submarine was named "Komsomolets". The submarine was actively engaged in combat duties, including being used for combat protection of SSBNs of the Fleet's strategic forces.

The submarine was destroyed by fire in the Norwegian Sea on April 7, 1989. It is located in the Norwegian Sea at a depth of 1,670 m.



PLA K-278 "Kosmolets" pr.685 - MIKE, 1986 (photo - DoD US)

Author: DIMMI Created: 06.07.2011 17:00:13 Comments: 21 READ THE FULL ARTICLE

pr.949A Antey - OSCAR-II

DATA FOR 2024 (standard update)
pr.949A "Antey" - OSCAR-II

K-148 "Krasnodar"	K-442 "Chelyabinsk"	K-150 "Tomsk"
K-173 "Krasnoyarsk"	K-456 "Tver"	K-139 "Belgorod"
K-132 "Irkutsk"	K-266 "Orel"	K-135 "Volgograd"
K-119 "Voronezh"	K-186 "Omsk"	K-160 "Barnaul"
K-410 "Smolensk"	K-141 "Kursk"	

Project 949U "Atlant" - OSCAR-II+
Project 949AM (I)
Project 949AM (II)

Nuclear submarine with anti-ship cruise missiles (SSGN). The project was developed by the Rubin Design Bureau under the supervision of Chief Designer P.P. Pustyntsev, Chief Designer for the Granit missile system - V.N. Chelomey. In August 1977, after Pustyntsev's death, I.L. Baranov became Chief Designer. Deputy Chief Designer - O.A. Gladkov (1983). Project 949A was a development of Project 949 with an additional compartment of the pressure hull and an updated layout. The initial plans provided for the construction of a large series of 20 Project 949 SSGNs - taking into account the two built Project 949 SSGNs, it is likely that a series of 18 Project 949 SSGNs was built.

On December 30, 1980, the lead SSGN of Project 949 K-525 was accepted into the USSR Navy, and the Granit missile system was accepted into service with the USSR Navy by the Resolution of the USSR Council of Ministers dated March 12, 1983. The lead SSGN of the new Project 949A - K-148 - was laid down in workshop No. 55 of PO Sevmash on July 22, 1982. The boat was taken out of the workshop and launched on March 3, 1985, and entered service with the Fleet on September 30, 1986.

The boats of the project have the unofficial name "Baton" in the Fleet - for the shape of the hull and impressive size.



SSGN pr.949A OSCAR-II (http://forums.airbase.ru).

Author: DIMMI Created: 24.11.2011 12:51:20 Comments: 32 READ THE FULL ARTICLE

pr.945 / 945A - SIERRA-I / SIERRA-II

DATA FOR 2024 (standard update)
pr.945 "Barracuda" - SIERRA-I
Project 945A "Condor" - SIERRA-II
pr.945AB "Mars" - SIERRA-III

Multipurpose nuclear submarine / cruiser submarine. The development was carried out by TsKB-112 "Lazurit", the chief designer is I. I. Kvasha. Research work on the creation of a 3rd generation nuclear submarine began in 1971. The tactical and technical assignment for the SSN was issued to the USSR Navy in March 1972. The Navy was tasked with creating a SSN of a size and displacement that would allow the construction of submarines at domestic plants in the country. The main purpose of the new SSNs, codenamed "Barracuda", was to track missile submarines and aircraft carrier strike groups of a potential enemy, as well as the guaranteed destruction of these targets at the beginning of hostilities.

The project's special feature was the use of titanium alloy with a yield strength of 70-72 kgf/mm in the manufacture of a strong hull , which ensures an increase in the maximum diving depth by 1.5 times compared to the second-generation submarines. Titanium allowed to reduce the hull weight by 25-30%, and this, in turn, allowed to carry out construction in Gorky with subsequent transportation of the submarines by inland waterways. Indirectly, the ship's magnetic field was reduced, but the cost increased and the number of potential submarine manufacturers was reduced - the technology for constructing titanium hulls was not mastered in Komsomolsk-on-Amur.

The submarines were built at the A.A. Zhdanov Krasnoye Sormovo Plant in Gorky (since 1992 - Nizhny Novgorod, Krasnoye Sormovo Plant). The lead submarine of the Project 945 K-239 was laid down on 20.07.1979, launched on 29.07.1983 and accepted by the Fleet on 29.09.1984. After launching, the submarines traveled via inland waterways to Severodvinsk, where they were completed. Then another submarine of the Project 945 was built, and then two submarines of the improved Project 945A. Then, in 1989, two submarines of the Project 945AB were laid down, but their construction was not completed - in 1994, the first submarine was dismantled, and in the same years - the second.



PLA B-336 "Pskov" pr.945A, Ara-Guba, summer 2004. The starboard side with traces of soot after a fire during repairs in the floating dock PD-50 SRZ-82 (http://forums.airbase.ru)

Author: DIMMI Created: 11/17/2012 00:04:30 Comments: 14 READ THE FULL ARTICLE

pr.677 - LADA

DATA FOR 2024 (standard update)
pr.677 / 06770 "Lada" - LADA
B-585 "St. Petersburg"
pr.677D
B-586 "Kronstadt"
B-587 "Velikiye Luki" ("Sevastopol")
B- "Vologda"
B- "Yaroslavl"
pr.677E "Amur-1650" "Amur-1650"

★★★★

Large diesel-electric submarine ("B"). Developed by the Rubin Central Design Bureau of Marine Engineering, chief designer - Yu.N.Kormilitsyn. R & D began in 1987 and initially it was planned to build a large series of submarines at the Leningrad Admiralty Association (Leningrad), Sevmash (Severodvinsk), Krasnoye Sormovo (Nizhny Novgorod) and Leninskogo Komsomol (Komsomolsk-on-Amur) plants.

The technical design of the submarine project 677 was approved in 1993, but was sent for reworking. The second version of the technical design was approved in 1997. During the creation of the submarine, 180 R & D works were completed. The development of the sonar system was initially assigned to the Okeanpribor Research Institute, but the sonar system design they proposed could not be placed on the Project 677 submarine due to its weight and size characteristics. The General Director of the Rubin Central Design Bureau of Marine Engineering I.D. Spassky obtained a decision from the Ministry of Shipbuilding Industry to transfer the development of the sonar system to the Volna Electronic PO (Moscow). In the summer of 2005, the Federal State Unitary Enterprise NPO Elektropribor (St. Petersburg, contract dated April 2006) joined the development of the sonar system as the main contractor.

The lead boats of the series - Project 677 "Lada" - B-585 (sometimes called B-100 and S-100, factory No. 01570) and the lead boat of Project 677E "Amur" ("Amur-1650") were laid down at the Admiralty Shipyards FSUE (St. Petersburg) on December 26, 1997. In 1997, submarine B-585 received the name "St. Petersburg". During 1998-2001 (as of April 1, 2002), Admiralty Shipyards spent 335.1 million rubles on the construction of the lead submarine of Project 677, including 263.1 million rubles from the federal budget (including 175.5 million rubles in 2001). In the first quarter of 2002, federal funding for the construction of the order was not provided (source).

The lead boat was launched on October 28, 2004. The delivery of the submarine to the Navy was planned for 2006 (it did not take place on time). From December 14 to 21, 2005, the submarine "Saint Petersburg" made its first sea voyage for testing, and its first dive was performed. According to media reports, the submarine was supposed to begin state testing in 2006, but until the first half of 2008 (at least) it underwent factory sea trials with the refinement of the submarine's units and systems. As of 2009, the submarine is planned to be accepted by the Navy for 2009-2010. In February 2010, it was announced that the lead boat "Saint Petersburg" would be accepted for trial operation by the Navy before the summer, and on 22.04.2010, the Navy signed the acceptance certificate for the lead boat B-585 "Saint Petersburg", and the boat was accepted for trial operation. On 8 May 2010, the Russian Navy flag was raised on the submarine B-585 "Saint Petersburg".



Submarine B-586 "Kronshtadt" project 677D on the Neva in St. Petersburg during the naval parade on Navy Day, 2019 (photo - Said Aminov, https://t.me/vestnikpvo).

Author: DIMMI Created: 02.07.2009 01:16:11 Comments: 74 READ THE FULL ARTICLE

pr.667BDRM Dolphin - DELTA-IV

DATA FOR 2024 (standard update)
project 667BDRM "Dolphin" - DELTA-IV
K-51 "Verkhoturye"
K-84 "Ekaterinburg"
K-64 "Podmoskovie"
K-114 "Tula"
K-117 "Bryansk"
K-18 "Karelia"
K-407 "Novomoskovsk"
★★★★

Nuclear-powered ballistic missile submarine (SSBN) / strategic missile submarine (SSBN). The SSBN project was developed by the Rubin Central Design Bureau for Marine Engineering (Leningrad), Chief Designer - S.N. Kovalev . The USSR Council of Ministers decree on the development of SSBNs with the D-9RM intercontinental missile system was issued on September 10, 1975. The boat was developed as a more advanced modification of the Project 667BDR SSBN. The project used new developments in the field of armament, control and detection systems, and means of reducing hydroacoustic noise. Various damping, vibration-insulating, and sound-absorbing devices were widely used. The results of noise emission studies of various hull structures were tested. All changes ensured a reduction in the detection range of the Project 667BDRM SSBN in the Arctic regions by American Los Angeles-class submarines to 20 nautical miles.

Probably in the second half of 1980, the technical design of the SSBN was prepared. Construction of the series of boats began in Severodvinsk at PO Sevmash with the lead boat K-51 (plant no. 379), which was laid down on February 23, 1981, launched on March 7, 1984 and accepted by the Fleet on December 29, 1984.

A total of 7 SSBNs of the project were built from 1984 to 1990.



Submerging SSBN pr.667BDRM "Delfin" - DELTA-IV

Author: DIMMI Created: 16.11.2012 23:59:26 Comments: 35 READ THE FULL ARTICLE

pr.641 FOXTROT

DATA FOR 2024 (standard replenishment)
pr.641 FOXTROT

Large (ocean-going) diesel-electric submarine ("B"). The boat was developed by TsKB-18 (later renamed TsKBMT "Rubin", chief designer - S.A. Egorov, later Z.A. Deribin) to replace the large submarines of Project 611. The decision of the Navy and the Navy to develop a technical design was made in October 1954. The technical design of the submarine of Project 641 was presented by TsKB-18 in January 1955 (approved in July 1955 by a decree of the USSR Council of Ministers). Full-scale mock-ups of the submarine compartments were manufactured in July 1955. In August 1955, a decision was made to change the diving depth of the submarine, which entailed a change in the design and a significant upgrade of the equipment. The lead submarine B-94 was laid down at Plant No. 196 (Sudomek, Leningrad) on October 3, 1957. She was launched on December 28, 1957 at 64% readiness, completed trials on December 15, 1958, and entered service with the Navy on December 25, 1958. A total of 75 submarines of various modifications of Project 641 were built (initially, it was planned to build 160 units). Plant No. 196 (Sudomek, Leningrad) built 46 submarines between 1957 and 1967. The Novo-Admiralteysky Plant (Leningrad) built 16 submarines between 1966 and 1971. The Leningrad Admiralty Association built 13 submarines from 1971 to 1983. Some of the submarines were built for export according to Project I-641. By default, the data is for submarines of Project 641.



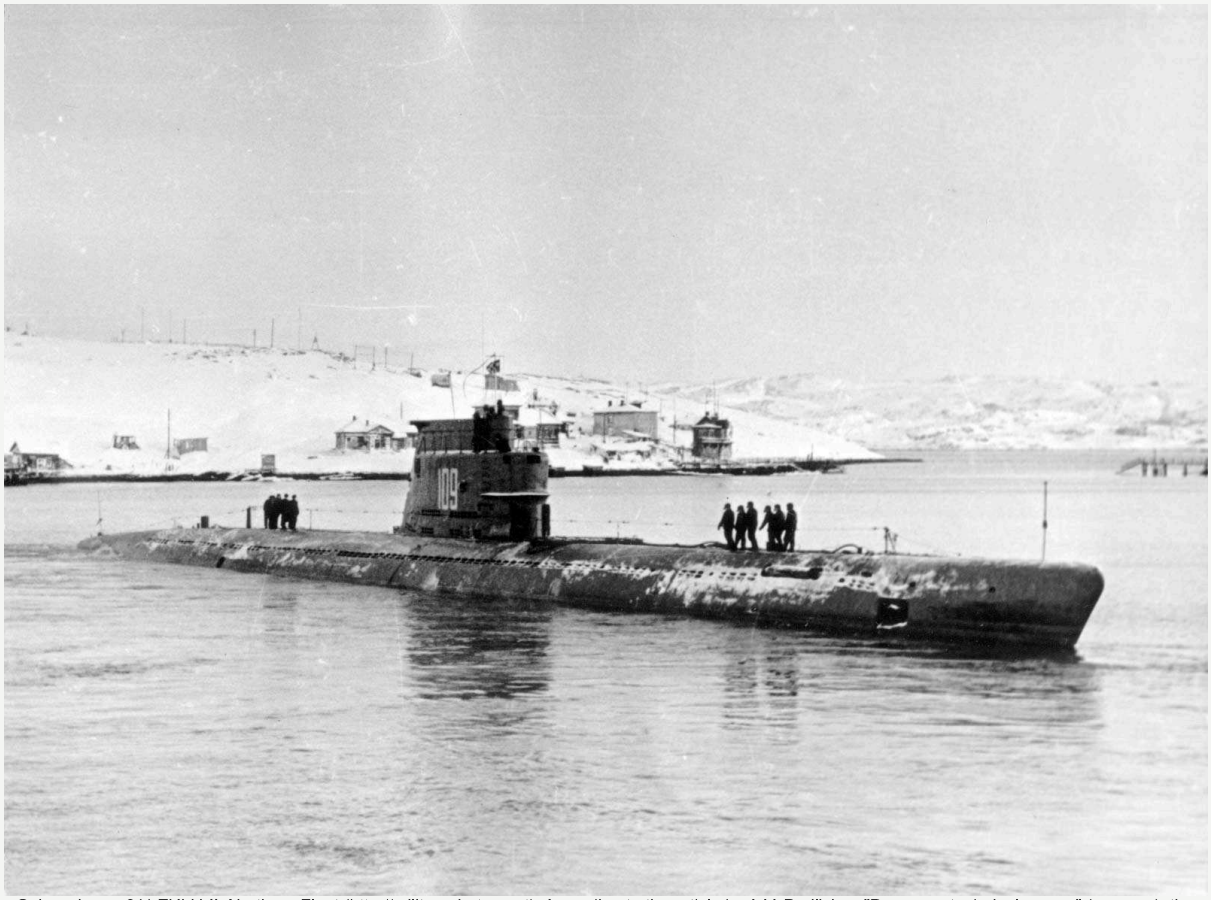
Submarine U01 "Zaporizhzhya" of the Ukrainian Navy after leaving Shipyard No. 13, Sevastopol, 20.03.2012 (http://vmsu.info).

Author: DIMMI Created: 31.05.2009 20:59:06 Comments: 38 READ THE FULL ARTICLE

pr.611 - ZULU

DATA FOR 2023 (standard update)
Project 611 ZULU-I (basic project with artillery armament)
Project 611 ZULU-II (basic design without artillery armament)
Project 611 ZULU-III (basic design with new sonar)
★★★★

Large diesel-electric submarine ("B"). The boat was developed by TsKB-18 (later renamed TsKBMT "Rubin"), chief designer - S.A. Egorov. Preliminary development began in 1943. The draft design was developed in October 1947 and approved by the decree of the USSR Council of Ministers of August 2, 1948. Development of the technical design began in April 1948 using technologies and technical solutions of the German submarine of the XXI series (completed in December 1948). The technical design was approved and a decision was made to build the Project 611 submarine by the Resolution of the USSR Council of Ministers dated January 28, 1949. A full-scale wooden model was built in August 1949. Production of the submarine was launched at Plant No. 196 (Sudomekh, Leningrad, 8 submarines were built between 1951 and 1955) and at Plant No. 402 (Molotovsk, later Severodvinsk, 1954-1958, 18 submarines of all modifications). The lead boat of the project, B-61, was laid down at Plant No. 196 on January 10, 1951. Testing of B-61 was completed on December 31, 1953. For completion, the submarine B-61 was transferred to Plant No. 890 (Tallinn), where it was transferred under its own power in difficult ice conditions. A total of 26 submarines of Project 611 of all modifications were built in the period 1951-1958. By default, the data is Project 611.



Submarine pr.611 ZULU-II, Northern Fleet (http://militaryphotos.net). According to the article by A.V. Burilichev "Deep-sea technical means" (source), the photo shows the submarine carrier of the underwater vehicles " Arkhipelag " and " Seliger " - BS-69.

Author: DIMMI Created: 22.05.2009 19:01:43 Comments: 15 READ THE FULL ARTICLE

pr.613 WHISKEY - chronology, export, sources

DATA FOR 2023 (standard update)
pr.613 WHISKEY - chronology, export, sources
★★★★



Submarine pr.613 WHISKEY-III on the Neva, Leningrad, 1968 (http://community.webshots.com/)

Status : USSR / Russia - 215 units built, served in service.

Production:
- Plant No. 444 (Black Sea Shipyard, Nikolaev) - 1950-1957 - a total of 72 units were built (lead S-61).

- Plant No. 112 (Krasnoye Sormovo plant, Gorky) - 1950-1956 - a total of 113 units were built.
- Plant No. 189 (Baltic Shipyard, Leningrad) - 1953-1958 - a total of 19 units were built.
- Plant No. 199 (Lenin Komsomol Plant, Komsomolsk-on-Amur) - 1954-1957 - a total of 11 units were built.

Author: DIMMI Created: 07.09.2009 22:52:00 Comments: 9 READ THE FULL ARTICLE

pr.09786 - DELTA-III STRETCH

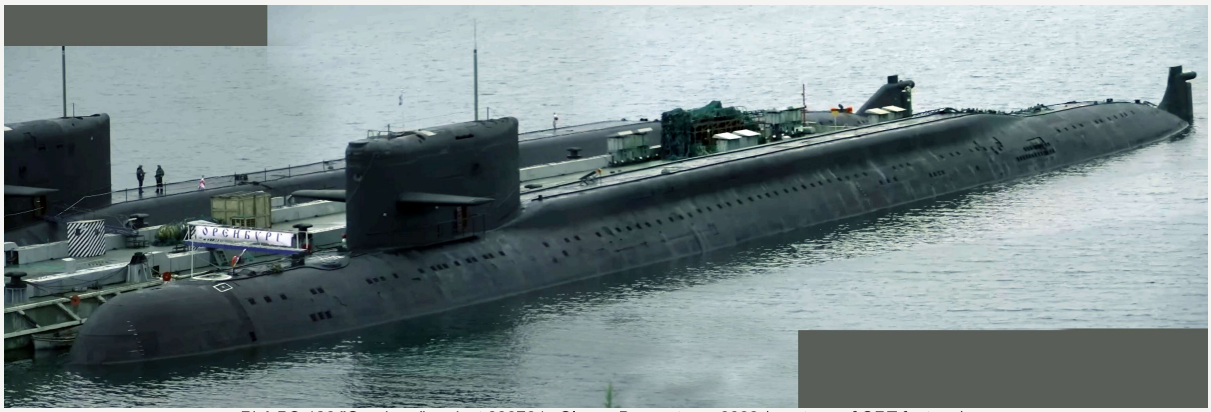
DATA FOR 2023 (standard update)
pr.09786 "Grunt-1" - DELTA-III STRETCH
BS-136 "Orenburg"
★★★

Special-purpose nuclear submarine (SPNS) / large research SSN carrier with additional rescue functions "Grunt-1" (*source - "O generalnom.."*). The carrier boat was developed on the basis of the SSBN pr.667BDR - DELTA-III in the Central Design Bureau of Marine Engineering "Rubin" by order of the GUGI of the Ministry of Defense of Russia. Chief designer - E.A. Gorigledzhan (*source - "O generalnom.."*). Purpose - transportation of nuclear deep-water stations (NDS) to the area of execution of tasks, additional functions - performance of rescue operations - were planned to be implemented on the second boat of the project (*source - "O generalnom.."*). The development of the preliminary design of the second-generation complex pr.10830 / pr.1083 with the deep-water station pr.10831 ("Losharik") and the submarine-carrier pr.09786 "Orenburg" (BS-136) was carried out using the experience of creating the experimental complexes pr.1851 . The corrected technical design of the pr.10830 / 1083K complex (in terms of the NGS) was presented and defended in May 1992. In addition to the NGS pr.10831, the submarine-carrier pr.09786 can carry the NGS AS-35 pr.18511 "Paltus" .

The conversion of the K-129 SSBN (factory No. 398) of Project 667BDR was started by the Zvezdochka Shipyard in Severodvinsk in May 1994 and completed on December 23, 2002. By March 2005, the boat was presumably accepted by the Fleet as part of the 29th separate submarine brigade of the Northern Fleet, Olenya Bay (source). In the period from 2004 to 2007, factory, state and deep-sea tests of the special experimental deep-sea nuclear station of Project 10831 AC-12 - LOSHARIK were conducted in the White, Barents, Norwegian and Greenland Seas. The carrier of the NGS was the Project 09786 BS-136 Orenburg PLASN (source).

Possibly in the period 2008-2010. the submarine was modified based on the results of operation and tests of the project 10831 AS-12 - LOSHARIK NGS in 2004-2007. This conclusion indirectly confirms that the submarine's sea trials took place in August-September 2011 (source). According to unconfirmed data, on January 6, 2013, the Navy Flag was lowered on the submarine and the submarine was decommissioned from the Fleet, but at the same time, at the end of July 2013, the submarine was visited by a delegation from the Orenburg Region (see below). In any case, the withdrawal of the carrier submarine from the Fleet was expected in 2013 (source).

As of 2022, the BS-136 PLASN is based in Olenya Bay together with the new carrier PLA BS-64 "Podmoskovye".



PLA BS-136 "Orenburg" project 09876 in Olenya Bay, autumn 2022 (montage of ORT footage).

Author: DIMMI Created: 06.09.2013 01:20:08 Comments: 6 READ THE FULL ARTICLE

pr.667AN / pr.09774 - YANKEE STRETCH

DATA FOR 2015 (standard update)
pr.667AN / pr.09774 - YANKEE STRETCH
KS-411 / BS-411 "Orenburg"
★★★

Special-purpose nuclear submarine (SPNS) / submarine-carrier of nuclear deep-sea stations (NDSS) / large scientific research SSN-carrier of deep-sea scientific research facilities (*source - "O generalnom"*). The boat was developed on the basis of the SSBN of project 667A - YANKEE in the Central Design Bureau of Marine Engineering "Rubin" by order of the Main Directorate of Marine Engineering of the Ministry of Defense of Russia. Chief Designer - E.A. Gorigledzhan (*source - "O generalnom"*). Year of project development - 1982. Purpose - transportation of nuclear deep-sea stations (NDSS) to the area of execution of tasks and ensuring their operation in the target area.

SSBN K-411 of project 677A (plant No. 430) was selected for conversion according to project 09774. The refitting was carried out at the Zvezdochka Shipyard in Severodvinsk from October 20, 1983. The person in charge of the delivery was E. N. Diorditsa, the delivery mechanic was P. N. Glaz (*history - Storm of the depths*). In June 1990, the boat was launched and after mooring and sea trials on December 30, 1990, it was accepted by the USSR Navy. It is based at the 29th Special Submarine Brigade of the Northern Fleet, Olenya Bay.

In some sources, the submarine project is called Project 667AN, with the supposed decoding as "A-Scientific".

The submarine "Orenburg" Project 09774 was disposed of at the Zvezdochka Shipyard in Severodvinsk in 2009.



PLA carrier project 09774 BS-411 "Orenburg". Olenya Bay, 2000 (http://en.wikipedia.org).

Author: DIMMI Created: 20.09.2013 01:18:38 Comments: 6 READ THE FULL ARTICLE

pr.675N / pr.06754

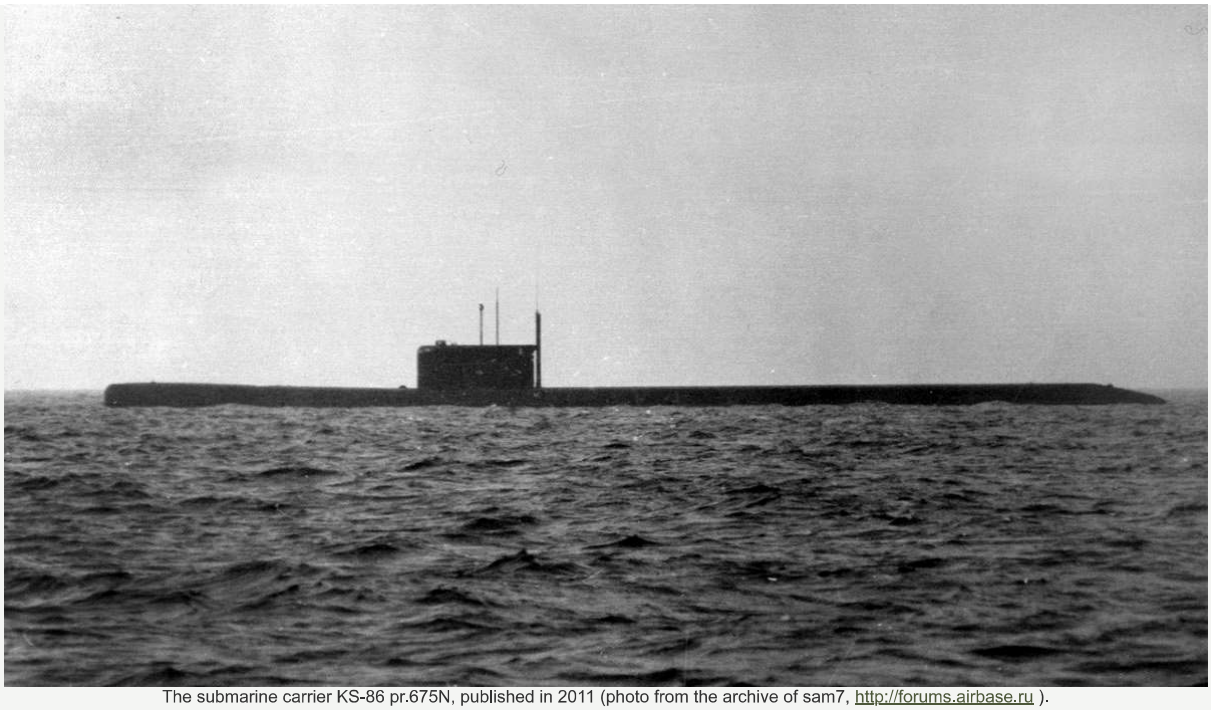
DATA FOR 2017 (in progress)
Project 675N / Project 06754
KS-86
★★★

Special-purpose nuclear submarine (SPNS) / experimental submarine-carrier of deep-sea nuclear power plants (DSN). The design of deep-sea nuclear power plants for special missions was initiated by the Decree of the USSR Council of Ministers of 1972 on the creation of the Project 1910 Kashalot nuclear deep-sea power plant (DSN) and the Project 1851 complex with the Project 675N SPNS carrier and the Project 18510 NGS . The Volna Central Design Bureau of the USSR Ministry of Shipbuilding Industry was determined as the prime contractor for the NGS projects. The Chief Designer of the Project 1851 complex is S.M. Bavilin. S.M. Bavilin invited V.M. Tereshkin and D.N. Dubnitsky to the positions of deputies, V.A. Uvarov and E.A. Deshkin to the positions of leading designers, and B.L. Romanov to the position of chief designer of the power plant. The design probably took into account the experience of operating the deep-sea complex " Seliger ".

A converted SSGN of Project 675 was chosen as the carrier of the NGS. The modernization project for Project 675N was assigned to LPMB "Rubin". In 1973, the technical design for the NGS of Project 18510 was completed . In 1974, SPMB Mashinostroyenia and TsPB "Volna" were merged into SPMBM "Malakhit", which was assigned to support the NGS of Project 1910 and the complex of Project 1851.

The Navy allocated the SSGN K-170 of Project 675 to the 11th division of the 1st flotilla of the USSR Navy for modernization according to the project. After modernization, the boat was named KS-86 . The conversion of the carrier SSN was started at the Zvezdochka shipyard in Severodvinsk in January 1973 and completed in 1981 (launched in December 1980). In 1978, the 1st and 2nd crews of the head station AS-23 of the Project 1851 complex were recruited for training in the navy detachment of hydronauts formed. In 1981, the experimental KS-86 PLASN was included in the 6th separate submarine division (later - the 29th separate submarine brigade) of the Northern Fleet, based at Olenya Bay. In 1983-1984, tests of the carrier boat as part of the complex with the Project 18510 NGS began. The experimental NGS of the project - AS-23 - during tests in 1986 for the first time carried out underwater docking with the Project 675N carrier submarine (source).

On June 24, 1991, the KS-86 NGS was excluded from the combat composition of the Fleet and laid up in Olenya Bay. In 2000-2001, the submarine was transferred to the Nerpa shipyard for disposal. 2004-2005 - the submarine was disposed of at the Nerpa shipyard.



The submarine carrier KS-86 pr.675N, published in 2011 (photo from the archive of sam7, http://forums.airbase.ru).

Author: DIMMI Created: 16.01.2017 22:08:35 Comments: 2 READ THE FULL ARTICLE

pr.1851 / 18510 / 18511 - X-RAY / PALTUS

DATA AS OF 2023 (standard replenishment)
Project 1851 complex, project 18510 boat "Nelma" - X-RAY / NELMA
AC-23
project 18511 "Halibut" - PALTUS
AC-21
AC-35
★★★★

Nuclear deep-sea station / special nuclear submarine / deep-sea technical facility (such names are used in some sources). By the order of the USSR Ministry of Shipbuilding Industry dated July 1, 1970, the Volna Central Design Bureau (subsequently from February 23, 1974 - Malakhit Scientific and Design Bureau) was designated the lead design bureau for the design of deep-sea manned technical facilities for ocean exploration, and all work on the design of these facilities from other design bureaus of the Ministry of Shipbuilding Industry was transferred to this bureau by the end of the year. In 1972, the Volna Central Design Bureau, under the leadership of Chief Designer E.S. Korsukov, completed preliminary designs for deep-water complexes of Projects 1910 and 1851, approved by a decree of the USSR Government, which defined their main tactical and technical elements (TTE), creation deadlines, and cooperation of co-executors for Projects 1910 and 1851. In the same 1972, by order of the Minister of the USSR Ministry of Shipbuilding Industry, S.M. Bavilin was appointed Chief Designer of Project 1851 , and the group of Chief Designer E.S. Korsukov was concentrated on the creation of Project 1910. The Volna Central Design Bureau of the USSR Ministry of Shipbuilding Industry was determined to be the lead contractor for the projects. Chief Designer of the Project 1851 Complex S.M. Bavilin. S.M. Bavilin invited V.M. Tereshkin to the position of deputies. and Dubnitsky D.N., for the position of leading designers - Uvarov V.A. and Deshkin E.A., and the chief designer of the power plant - Romanov B.L. During the design, the experience of operating the deep-water complex " Seliger " was probably taken into account.

The nuclear deep-water station could be operated independently, but it was planned to use it with a carrier submarine. The carrier boat with the NGS arrived in the work area, the NGS undocked from the carrier boat and carried out work on the bottom independently. After which it was docked back to the carrier to replenish supplies or in connection with the termination of work.

In 1972, the Leningrad Admiralty Association began preparations for the construction of NGS projects 18510 and 1910. In 1973, the technical design of the NGS project 18510 was completed. After the technical project was defended by the chief designer S.M. Bavilin, it was proposed to completely change the technical project, especially in terms of the power plant. The decision was supported by the customer, represented by the Commander-in-Chief of the USSR Navy S. Gorshkov. In 1974, SPMB Mashinostroeniya and TsPB Volna were merged into SPMBM Malakhit, which was tasked with supporting the development and construction of the Project 1910 NGS and the Project 1851 complex. Specialists from the Academician Krylov Central Research Institute, the Prometey Central Research Institute of Krylov Materials (structural materials), the Central Research Institute of Technical Support, the Central Research Institute of Electronic Components, the Electrosila Laboratory of Industrial Engineering, and others took part

in the development of the NGS. A converted Project 675 SSGN was chosen as the NGS carrier. The Project 675N Modernization Project The submarine "Rubin" was assigned to the submarine submarine "Rubin". The Navy allocated the 11th division of the 1st flotilla of the USSR Navy for modernization according to the K-170 project of Project 675. After modernization, the boat was named KS-86. The conversion of the submarine carrier began at the Zvezdochka shipyard in Severodvinsk in January 1973 and was completed in 1981.

In 1978, the 1st and 2nd crews of the AS-23 head station of the Project 1851 complex were recruited for training in the navy's hydronaut detachment formed by the Navy.



AGS pr.18511 "Halibut" - PALTUS (MilitaryRussia.Ru, retouched photo from USC).

Author: DIMMI Created: 24.06.2011 20:01:37 Comments: 68 READ THE FULL ARTICLE

Project 877 - KILO / Improved KILO

DATA FOR 2017 (standard update)
pr.877 "Halibut" / pr.877E / pr.877EKM "Varshavyanka" - KILO
pr.877M / pr.877EKM (last 2 pcs) / pr.08773 - Improved KILO
pr.636 / pr.636M / pr.06361 - Improved KILO
pr.06363 - Improved KILO-II
★★★★

Large diesel-electric submarine (type "B"). Development of the project was started according to the tactical and technical assignment approved by the USSR Navy in 1974. The design was carried out by the Rubin Central Design Bureau (TsKB-18) jointly with the Krylov Research Institute, the chief designer of the project was Yu.N.Kormilitsyn. The technical design of the boat was approved by the Commander-in-Chief of the USSR Navy on December 20, 1976. Preparation for production of the lead boat of the project at Shipyard No. 199 "Leninskogo Komsomol" (Komsomolsk-on-Amur) began in 1979. The keel of the lead boat B-248 was laid on March 16, 1980. The boat was launched on September 12, 1980 and delivered to the USSR Navy on December 31, 1980.



Submarine B-871 "Alrosa" project 877V KILO, Black Sea, January 20, 2007 (photo - Vitaly Kostrichenko, http://forums.airbase.ru).

Author: DIMMI Created: 20.06.2009 22:04:28 Comments: 74 READ THE FULL ARTICLE

Project 949 Granite - OSCAR-I

DATA FOR 2023 (standard update)
Project 949 "Granite" - OSCAR-I
★★★★

Nuclear submarine with anti-ship cruise missiles (SSGN) / 1st rank submarine missile cruiser. Research into the design of a carrier of new third-generation anti-ship cruise missiles began in 1967. During the research, it was established that the destruction of an aircraft carrier as part of a prospective aircraft carrier formation with supersonic anti-ship missiles is possible with an order of 20-24 anti-ship missiles in a salvo. The tactical and technical assignment for the creation of a "heavy underwater missile cruiser" and a new operational missile system "Granit" was formed by the 1st Central Research Institute of the Ministry of Defense of the USSR during 1969. In parallel, even before the start of the preliminary design, preliminary studies of submarine options were carried out at TsKB-18, taking into account the capabilities of the developers of the ship's components. As a result, it took only about two months to agree on the technical assignment. When developing the technical specifications, the Main Staff of the USSR Navy proposed the following concept for using SSGNs:
- the number of anti-ship missiles in a salvo from one SSGN must ensure the destruction of an aircraft carrier as part of an AUG
; - the number of SSGNs in the Navy must be no less than the possible number of AUGs of a potential enemy, taking into account the reserve;
- the characteristics of the SSGNs must ensure the deployment of our anti-aircraft carrier forces in any area of the ocean, ensuring contact with the AUG during any of its maneuvers;

When developing the SSGNs, among other things, the developments on the Project 661 RARA SSNs were used . By the Resolution of the USSR Council of Ministers of July 10, 1969 on conducting the Granit R&D project to create a missile system, the start date for joint tests of the system was set for the second quarter of 1973. By the Resolution of the USSR Council of Ministers of July 16, 1970, a decision was made to design the Project 949 SSGN with its inclusion in the shipbuilding plans for 1971-1980. The project was developed by TsKB-18 (LMPB "Rubin") under the leadership of chief designer P.P. Pustyntsev, chief designer of the missile complex "Granit" - V.N. Chelomey. In August 1977, after Pustyntsev's death, I.L. Baranov became chief designer. Deputy chief designer - O.A. Gladkov (1983).

At the first stage of development of the preliminary design, more than 100 ship layout options were considered. As a result, two layout options were presented to the Presidium of the Scientific and Technical Council of the USSR Ministry of Shipbuilding Industry - an option that best meets the requirements of the Navy's technical specifications and an option with limited tactical and technical elements that allow the construction of the SSGN at the country's domestic shipyards (the Krasnoye Sormovo Shipyard in Gorky and the Leninsky Komsomol Shipyard in Komsomolsk-on-Amur). The preliminary design was approved in its first version on March 15, 1971. The technical design of the boat was approved in July 1972. The initial plans provided for the construction of a large series of 20 SSGNs of the project. During the development of the boat, a towed model 25 m long was created, which underwent various types of testing on the Ladoga Ober and in Sevastopol.



SSGN K-525 "Arkhangelsk" pr.949 "Granit" - OSCAR-I (original photo from the Tor archive, processed, http://tsushima.su).

Author: DIMMI Created: 24.11.2011 16:52:28 Comments: 7 READ THE FULL ARTICLE

Project 09852 SMP-PN - OSCAR-II mod.

DATA FOR 2022 (standard update)
Project 09852 / SMP-PN / OKR "Remounting" - OSCAR-II mod.
BS-329 "Belgorod"
★★★★

Research nuclear submarine / special purpose nuclear submarine (SPNS). The carrier boat was developed on the basis of the Project 949A SSGN by the Rubin Central Design Bureau of Marine Engineering by order of the Main Directorate of Marine Engineering of the Russian Ministry of Defense. The submarine carrier of rescue deep-sea manned and autonomous unmanned underwater vehicles is designed to conduct diverse scientific research in remote areas of the ocean, participate in search and rescue operations. The SSN will also ensure the installation of various underwater equipment and its inspection, participate in testing new models of research equipment, and monitor underwater transport routes.

State contract No. 748/31/664PM-2009/27-09 dated 19.05.2009 for the implementation of the R&D project "Remontirovka" was concluded between the

Central Design Bureau of Marine Engineering "Rubin" and the Russian Ministry of Defense (*source - Central Design Bureau of Marine Engineering "Rubin", annual report for 2012*). Information about plans to convert the SSN "Belgorod" (order No. 664 / 91664) into a submarine carrier for underwater vehicles was first published in 2010 (source). Back in February 2012, the then Commander-in-Chief of the Russian Navy Vladimir Vysotsky announced plans to use the unfinished SSGN "Belgorod" as a special-purpose boat. On April 25, 2012, PO Sevmash and CDB MT Rubin signed Agreement No. 89/08118 for the development of design documentation for project 09852 order in the scope of the list of working design documentation for the backlog of plant No. 664 of project 949A. State contract No. 66-12 for the performance of R&D work on the PLASN project 09852 plant No. 664 was concluded on September 11, 2012 between the Russian Ministry of Defense and JSC CDB MT Rubin. Agreement 4967/8312/147-12 49367/8312 for the performance of R&D work on the topic of "construction of the PLASN", code "SMP-PN", project 09852, plant. No. 664 was signed between JSC Central Design Bureau of Marine Engineering Rubin and JSC Sevmash on September 11, 2012 (source).

On December 20, 2012, in workshop No. 55 of PO Sevmash (Severodvinsk), the unfinished SSGN K-329 Belgorod of project 949AM (factory No. 664, 85% complete) was re-laid down under project 09852. As of mid-2015, work on the conversion of the submarine is ongoing and the submarine's readiness is expected no earlier than 2016-2017. The modernization of the submarine was noticeably delayed and only on April 23, 2019, the submarine was taken out of the PO Sevmash workshop and later launched for completion afloat. Further, on June 25, 2021, the PLASN entered factory sea trials for the first time, and transfer to the Fleet is planned for the end of 2021, but in the end, the PLASN was transferred to the Fleet on July 8, 2022, without testing the proposed main weapons system with the Poseidon unmanned nuclear underwater vehicles.

Note:There is no information yet about the official name of the boat as KS-329 ("cruiser special") or BS-329 ("large special") - the name is tentative.



BS-329 Belgorod project 09852 submarine presumably in the White Sea in October 2022 (photo from the KURYER archive)

Author: DIMMI Created: 20.12.2012 16:29:18 Comments: 25 READ THE FULL ARTICLE

Project 10830 / Project 10831 / Project 210 - LOSHARIK

DATA AS OF 2023 (standard replenishment)
Complex pr.10830 / 1083K "Kalitka" / 1083KM, AGS pr.10831 / "pr.210 Losharik" - LOSHARIK
AC-31
★★★★

Nuclear deep-water station of the 1st rank / special nuclear submarine / deep-sea technical facility (DSTF) - component of the project 1083K complex. The deep-sea nuclear station was designed by SPMBM "Malakhit". Chief Designer - S.M. Bavilin (after 2001, probably Yu.M. Konovalov). The development of the preliminary design of the second-generation complex of project 10830 / project 1083 with the deep-sea station of project 10831 and the submarine-carrier of project 09786 "Orenburg" (BS-136) was carried out using the experience of creating experimental complexes of project 1851. After the defense of the preliminary design of the NGS of project 10830, the Resolution of the USSR Council of Ministers on the creation of the NGS of project 10831 with a polyspherical pressure hull was issued. R&D work was organized to develop the technology for manufacturing a polyspherical pressure hull and lightweight filler monoblocks, as well as to create the equipment that completes the station. Apparently, by 1988-1990, the technical and working projects of the station were developed and approved. The projects were developed simultaneously with the mock-up of the equipment placement in the spherical compartments of the submarine. In 1991, with the practically completed blocks of the NGS pressure hull, according to the customer's technical specifications, an adjustment was made to technical project 10830 in terms of placing additional weapons (probably special equipment systems) in the bow of the NGS. The adjusted technical project of project 10830 / 1083K of the complex was presented and defended in May 1992.

The data contained in this article are hypothetical and approximate. All facts and data are either fictitious or based on open and unclassified sources of information (see below).



Presumably, the photo shows the AGS pr.10831 AC-31 plant no. 01210 "Losharik". According to the source, the photo was taken in the Severodvinsk area. The date of the photo is unknown - unlikely earlier than 2005 and no later than the summer of 2014 (Top Gear magazine via http://forums.airbase.ru).

Author: DIMMI Created: 10.06.2011 14:55:15 Comments: 188 READ THE FULL ARTICLE

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590 Rambler's Top100 AviaTOP